THE INVENTION CLAIMED IS:

1. A network interface for processing incoming messages sent by a client device to a server, comprising:

a First-In-First-Out (FIFO) buffer adapted to receive the incoming messages and to assemble the incoming messages from a serial to a parallel form; and

a regular-expression pattern matching circuit connected to the FIFO buffer, the regular-expression pattern matching circuit adapted to, concurrent with the assembly of the incoming messages from a serial to a parallel form, recognize Hypertext Transfer Protocol (HTTP) message headers embedded in the incoming messages, parse recognized HTTP message headers into parsed HTTP message headers, and provide the parsed HTTP message headers to the server.

2. The network interface as claimed in claim 1 further including:

a logic circuit connected to the FIFO buffer, the logic circuit adapted to provide a response message to the client device based on a content of the recognized HTTP message headers.

3. The network interface as claimed in claim 1 wherein:

the regular-expression pattern matching circuit is further adapted to provide to the server the parsed HTTP message headers in a compact form.

4. The network interface as claimed in claim 1 wherein:

the regular-expression pattern matching circuit is further adapted to provide to the server incoming messages that cannot be recognized by the regular-expression pattern matching circuit.

5. The network interface as claimed in claim 1 wherein:

the regular-expression pattern matching circuit is implemented by a technique consisting of hardware, software, and a combination thereof.

6. The network interface as claimed in claim 1 wherein:

the HTTP message headers include HTTP cookies.

7. A network interface for processing incoming messages sent by a client device to a server, comprising:

a First-In-First-Out (FIFO) buffer adapted to receive the incoming messages and to assemble the incoming messages from a serial to a parallel form;

a regular-expression pattern matching circuit connected to the FIFO buffer, the regular-expression pattern matching circuit adapted to, concurrent with the assembly of the incoming messages from a serial to a parallel form, recognize Hypertext Transfer Protocol (HTTP) message headers embedded in the incoming messages, parse recognized HTTP message headers into parsed HTTP message headers, provide the parsed HTTP message headers in a compact form to the server, and provide to the server incoming messages that cannot be recognized by the regular-expression pattern matching circuit, wherein:

the HTTP message headers include HTTP cookies, and

the regular-expression pattern matching circuit is implemented by a technique consisting of hardware, software, and a combination thereof; and

a logic circuit connected to the FIFO buffer, the logic circuit adapted to provide a response message to the client device based on a content of the recognized HTTP message header.

8. A server for providing services to a client device, comprising:

a central processing unit (CPU);

a bus connected to the CPU;

a memory connected to the bus, the memory having a server application program stored therein; and

a network interface for processing incoming messages sent by the client device to the server, the network interface including:

a First-In-First-Out (FIFO) buffer adapted to receive the incoming messages and to assemble the incoming messages from a serial to a parallel form, and

a regular-expression pattern matching circuit connected to the FIFO buffer, the regular-expression pattern matching circuit adapted to, concurrent with the assembly of the incoming messages from a serial to a parallel form,

recognize Hypertext Transfer Protocol (HTTP) message headers embedded in the incoming messages, parse recognized HTTP message headers into parsed HTTP message headers, and provide the parsed HTTP message headers to the CPU and the memory, wherein the HTTP message headers include HTTP cookies.

9. The server as claimed in claim 8 further including:

a logic circuit connected to the FIFO buffer, the logic circuit adapted to provide a response message to the client device based on a content of the recognized HTTP message headers.

10. The server as claimed in claim 8 wherein:

the regular-expression pattern matching circuit is further adapted to provide to the CPU and the memory the parsed HTTP message headers in a compact form.

11. The server as claimed in claim 8 wherein:

the regular-expression pattern matching circuit is further adapted to provide to the CPU and the memory incoming messages that cannot be recognized by the regular-expression pattern matching circuit.

12. The server as claimed in claim 8 wherein:

the HTTP message headers include HTTP cookies.

13. A server for providing services to a client device, comprising:

a central processing unit (CPU);

a bus connected to the CPU;

a memory connected to the bus, the memory having a server application program stored therein; and

a network interface for processing incoming messages sent by the client device to the server, the network interface including:

a First-In-First-Out (FIFO) buffer adapted to receive the incoming messages and to assemble the incoming messages from a serial to a parallel form,

a regular-expression pattern matching circuit connected to the FIFO buffer, the regular-expression pattern matching circuit adapted to, concurrent with the assembly of the incoming messages from a serial to a parallel form, recognize Hypertext Transfer Protocol (HTTP) message headers

embedded in the incoming messages, parse recognized HTTP message headers into parsed HTTP message headers, provide the parsed HTTP message headers in a compact form to the CPU and the memory, and provide to the CPU and the memory incoming messages that cannot be recognized by the regular-expression pattern matching circuit, wherein:

the HTTP message headers include HTTP cookies, and

the regular-expression pattern matching circuit is implemented by a technique consisting of hardware, software, and a combination thereof, and

a logic circuit connected to the FIFO buffer, the logic circuit adapted to provide a response message to the client device based on a content of the recognized HTTP message headers.

14. A communications network, comprising:

a client device; and

a server connected to the client device for providing services to the client device, the server including:

a central processing unit (CPU),

a bus connected to the CPU,

a memory connected to the bus, the memory having a server application program stored therein, and

a network interface for processing incoming messages sent by the client device to the server, the network interface including:

a FIFO buffer adapted to receive the incoming messages and to assemble the incoming messages from a serial to a parallel form, and

a regular-expression pattern matching circuit connected to the FIFO buffer, the regular-expression pattern matching circuit adapted to, concurrent with the assembly of the incoming messages from a serial to a parallel form, recognize Hypertext Transfer Protocol (HTTP) message headers embedded in the incoming messages, parse recognized HTTP message headers into parsed HTTP message headers, and provide the parsed HTTP message headers to the CPU and the memory.

15. The communications network as claimed in claim 14 further including:

a logic circuit connected to the FIFO buffer, the logic circuit adapted to provide a response message to the client device based on a content of the recognized HTTP message headers.

16. The communications network as claimed in claim 14 wherein:

the regular-expression pattern matching circuit is further adapted to provide to the CPU and the memory the parsed HTTP message headers in a compact form.

17. The communications network as claimed in claim 14 wherein:

the regular-expression pattern matching circuit is further adapted to provide to the CPU and the memory incoming messages that cannot be recognized by the regular-expression pattern matching circuit.

18. The communications network as claimed in claim 14 wherein:

the HTTP message headers include HTTP cookies.

19. A communications network comprising:

a client device; and

a server connected to the client device for providing services to the client device, the server including:

a central processing unit (CPU),

a bus connected to the CPU,

a memory connected to the bus, the memory having a server application program stored therein, and

a network interface for processing incoming messages sent by the client device to the server, the network interface including:

a First-In-First-Out (FIFO) buffer adapted to receive the incoming messages and to assemble the incoming messages from a serial to a parallel form,

a regular-expression pattern matching circuit connected to the FIFO buffer, the regular-expression pattern matching circuit adapted to, concurrent with the assembly of the incoming messages from a serial to a parallel form, recognize Hypertext Transfer Protocol (HTTP) message headers embedded in the incoming messages, parse recognized HTTP message headers into parsed

HTTP message headers, provide the parsed HTTP message headers in a compact form to the CPU and the memory, and provide to the CPU and the memory incoming messages that cannot be recognized by the regular-expression pattern matching circuit, wherein:

the HTTP message headers include HTTP cookies, and

the regular-expression pattern matching circuit is implemented by a technique consisting of hardware, software, and a combination thereof, and

a logic circuit connected to the FIFO buffer, the logic circuit adapted to provide a response message to the client device based on a content of the recognized HTTP message headers.

20. A method for processing incoming messages sent by a client device to a server, comprising:

receiving the incoming messages using a First-In-First-Out (FIFO) buffer;

assembling the incoming messages from a serial to a parallel form using the FIFO buffer; and

concurrent with the assembling of the incoming messages from a serial to a parallel form:

recognizing Hypertext Transfer Protocol (HTTP) message headers embedded in the incoming messages received by the FIFO buffer using a regular-expression pattern matching circuit,

parsing recognized HTTP message headers into parsed HTTP message headers using the regular-expression pattern matching circuit, and

providing the parsed HTTP message headers to the server.

21. The method as claimed in claim 20 further including:

providing a response message to the client device based on a content of the recognized HTTP message headers.

22. The method as claimed in claim 20 wherein:

the providing the parsed HTTP message headers to the server provides the parsed HTTP message headers in a compact form.

23. The method as claimed in claim 20 further including:

providing to the server incoming messages that cannot be recognized by the regular-expression pattern matching circuit.

24. The method as claimed in claim 20 wherein:

the HTTP message headers include HTTP cookies.

25. A method for processing incoming messages sent by a client device to a server, comprising:

receiving the incoming messages using a First-In-First-Out (FIFO) buffer;

assembling the incoming messages from a serial to a parallel form using the FIFO buffer;

concurrent with the assembling of the incoming messages from a serial to a parallel form,

recognizing Hypertext Transfer Protocol (HTTP) message headers embedded in the incoming messages received by the FIFO buffer using a regular-expression pattern matching circuit,

parsing recognized HTTP message headers into parsed HTTP message headers using the regular-expression pattern matching circuit, and

providing the parsed HTTP message headers to the server in a compact form;

providing a response message to the client device based on a content of the recognized HTTP message headers; and

providing to the server incoming messages that cannot be recognized by the regular-expression pattern matching circuit.